

In the Claims:

1. (Original) A method of connecting a user computing device to one of a plurality of remote computers available for communication over a network comprising:
  - a) reading a data carrier modulated with an index;
  - b) accessing a database with the index, the database comprising a plurality of records that link an index to a pointer which identifies a remote computer on the network;
  - c) extracting a pointer from the database as a function of the index; and
  - d) using the pointer to establish communication with the remote computer identified thereby.
2. (Original) The method of claim 1 wherein the step of reading a data carrier modulated with an index comprises the step of reading a light pattern emanating from an object and demodulating the light pattern to obtain the index.
3. (Original) The method of claim 2 wherein the step of reading a light pattern emanating from an object and demodulating the light pattern to obtain the index comprises scanning a bar code symbol encoded with the index.
4. (Original) The method of claim 3 wherein the bar code symbol is encoded in accordance with an extrinsic standard.
5. (Original) The method of claim 1 wherein the index is at least a portion of a Universal Code.
6. (Original) The method of claim 1 wherein the step of reading a data carrier modulated with an index comprises receiving a signal emanating from an article of commerce, the signal being modulated with the index.
7. (Original) The method of claim 1 wherein the step of reading a data carrier modulated with an index comprises inputting into the user computing device an audible signal modulated with information correlated to the index.

8. (Original) The method of claim 1 wherein the step of reading a data carrier modulated with an index comprises inputting into the user computing device an electromagnetic signal modulated with information correlated to the index.

9. (Original) The method of claim 1 wherein the step of reading a data carrier modulated with an index comprises accessing a magnetic card with a magnetic card reader.

10. (Original) The method of claim 1 wherein the steps of accessing a database and extracting a pointer therefrom are carried out on the user computing device.

11. (Original) The method of claim 1 wherein the steps of accessing a database and extracting a pointer therefrom are carried out on a server computer located remotely from the user computing device.

12. (Currently amended) The method of claim 1 wherein the database is ~~[distributed over more than one computer]~~ accessed over a network.

13. (Original) The method of claim 1 wherein the pointer comprises a network address.

14. (Original) The method of claim 1 wherein the pointer comprises a Uniform Resource Locator.

15. (Original) The method of claim 1 wherein the pointer comprises the name of a remote computer.

16. (Original) The method of claim 1 wherein the pointer comprises an IP address.

17. (Currently amended) The method of claim 1 wherein the index is represented as at least part of a sequence of bits ~~[comprised of a first field and a second field]~~.

18. (Currently amended) The method of claim 17 wherein the step of accessing a database with an index comprises the steps of using only ~~[the first field of the index]~~ a part of the sequence of bits to access the database.

19. (Currently amended) The method of claim 18 wherein a plurality of bit sequences including the same index and other different information ~~[indexes having the same first field and different second fields]~~ will result in extraction of the same pointer.

20. (Currently amended) The method of claim 19 wherein ~~[the first field is a manufacturer identification number and the second field is a product]~~ the sequence of bits comprises at least first and second parts, the first part representing an index and the second part representing an identification number.

21. (Original) The method of claim 1 wherein the step of using the pointer to establish communication with the remote computer identified thereby is executed automatically by the user computing device without user intervention.

22. (Original) The method of claim 21 wherein the automatic communication by the user computing device with the remote computer is executed by a web browser program running on the user computing device.

23. (Original) The method of claim 1 wherein the step of using the pointer to establish communication with the remote computer identified thereby is executed by a user selecting hypertext link returned to the user computing device by the database.

24. (Original) The method of claim 1 wherein the network over which the user computing device establishes communication with the remote computer is a wide area network.

25. (Original) The method of claim 24 wherein the wide area network is the Internet.

26. (Original) The method of claim 24 wherein the wide area network is an online service.

27. (Original) The method of claim 26 wherein the database is resident on an online service provider computer with which the user computing device has established direct communication.

28. (Original) The method of claim 27 wherein the online service provider computer additionally provides a gateway to the Internet.

29. (Currently amended) The method of claim 1 wherein access to the database is in response to user input [~~requires entry of a password~~].

30. (Currently amended) The method of claim 1 wherein the database is [~~associated with a search engine~~] used to locate information on a network.

31. (Original) A system comprising: a. a user computing device; b. an input device associated with the user computing device, configured to read a data carrier modulated with an index; c. means for storing a database comprising a plurality of records that link an index to a pointer which identifies a remote computer; wherein the user computing device comprises: means for accessing the database to extract a pointer from the database as a function of the index; and means for using the pointer to establish communication with the remote computer identified thereby.

32. (Original) The system of claim 31 wherein the user input device comprises means for reading a light pattern emanating from an object and demodulating the light pattern to obtain the index.

33. (Original) The system of claim 32 wherein the means for reading a light pattern emanating from an object and demodulating the light pattern to obtain the index comprises means for scanning a bar code symbol encoded with the index.

34. (Original) The system of claim 33 wherein the means for scanning a bar code symbol is adapted to scan a bar code symbol encoded in accordance with an extrinsic standard.

35. (Original) The system of claim 31 wherein the input device is configured to read an index comprising at least a portion of a Universal Code.

36. (Original) The system of claim 31 wherein the input device is adapted to receive a signal emanating from an article of commerce, the signal being modulated with the index.

37. (Original) The system of claim 31 wherein the input device comprises means for inputting into the user computing device an audible signal modulated with information correlated to the index.

38. (Original) The system of claim 31 wherein the input device comprises means for inputting an electromagnetic signal modulated with information correlated to the index.

39. (Original) The system of claim 31 wherein the input device comprises means for reading a magnetic stripe card.

40. (Original) The system of claim 31 wherein the means for storing a database is located on the user computing device.

41. (Original) The system of claim 31 wherein the means for storing a database is located on a server computer located remotely from the user computing device.

42. (Currently amended) The system of claim 31 wherein the ~~[means for storing a]~~ database is ~~[distributed]~~ accessed over a network of ~~[over]~~ more than one computer.

43. (Original) The system of claim 31 wherein the pointer comprises a network address.

44. (Original) The system of claim 31 wherein the pointer comprises a Uniform Resource Locator.

45. (Original) The system of claim 31 wherein the pointer comprises the name of a remote computer.

46. (Original) The system of claim 31 wherein the pointer comprises an IP address.

47. (Currently amended) The system of claim 31 wherein the index is represented as at least part of a sequence of bits [~~comprised of a first field and a second field~~].

48. (Currently amended) The system of claim 47 wherein the means for accessing a database with an index comprises means for using only [~~the first field of the index~~] a part of the sequence of bits to access the database.

49. (Currently amended) The system of claim 48 wherein a plurality of bit sequences including the same index and other different information [~~indexes having the same first field and different second fields~~] will result in extraction of the same pointer.

50. (Currently amended) The system of claim 49 wherein [~~the first field is a manufacturer identification number and the second field is a product~~] the sequence of bits comprises at least first and second parts, the first part representing an index and the second part representing an identification number.

51. (Original) The system of claim 31 wherein the means for using the pointer to establish communication with the remote computer identified thereby executes automatically by the user computing device without user intervention.

52. (Original) The system of claim 51 wherein the automatic communication by the user computing device with the remote computer is executed by a web browser program running on the user computing device.

53. (Original) The system of claim 31 wherein the means for using the pointer to establish communication with the remote computer identified thereby executes by a user selecting hypertext link returned to the user computing device by the database.

54. (Original) The system of claim 31 wherein the network over which the user computing device establishes communication with the remote computer is a wide area network.

55. (Original) The system of claim 54 wherein the wide area network is the Internet.

56. (Original) The system of claim 54 wherein the wide area network is an online service.

57. (Original) The system of claim 56 wherein the database is resident on an online service provider computer with which the user computing device has established direct communication.

58. (Original) The system of claim 57 wherein the online service provider computer additionally provides a gateway to the Internet.

59. (Currently amended) The system of claim 31 wherein access to the database is in response to user input [~~requires entry of a password~~].

60. (Currently amended) The system of claim 31 wherein the database is [~~associated with a search engine~~] used to locate information on a network.

61. (Original) A user computing device comprising: a. an input device configured to read a data carrier modulated with an index; and b. computer processing means for executing a software program adapted to: utilize the index to access a database comprising a plurality of records that link an index to a pointer which identifies a remote computer; retrieve from the database a pointer as a function of the index; and use the pointer to establish communication with the remote computer identified thereby.

62. (Original) The user computing device of claim 61 wherein the user input device comprises means for reading a light pattern emanating from an object and demodulating the light pattern to obtain the index.

63. (Original) The user computing device of claim 62 wherein the means for reading a light pattern emanating from an object and demodulating the light pattern to obtain the index comprises means for scanning a bar code symbol encoded with the index.

64. (Original) The user computing device of claim 63 wherein the means for scanning a bar code symbol is adapted to scan a bar code symbol encoded in accordance with an extrinsic standard.

65. (Original) The user computing device of claim 61 wherein the input device is configured to read an index comprising at least a portion of a Universal Code.

66. (Original) The user computing device of claim 61 wherein the input device is adapted to receive a signal emanating from an article of commerce, the signal being modulated with the index.

67. (Original) The user computing device of claim 61 wherein the input device comprises means for inputting into the user computing device an audible signal modulated with information correlated to the index.

68. (Original) The user computing device of claim 61 wherein the input device comprises means for inputting an electromagnetic signal modulated with information correlated to the index.

69. (Original) The user computing device of claim 61 wherein the input device comprises means for reading a magnetic stripe card.

70. (Original) The user computing device of claim 61 wherein the software program is adapted to utilize the index to access a database located on the user computing device.



71. (Original) The user computing device of claim 61 wherein the software program is adapted to utilize the index to access a database located on a server computer remote from the user computing device.

72. (Currently amended) The user computing device of claim 61 wherein the software program is adapted to utilize the index to access a database [~~distributed over more than one computer~~]  
over a network.

73. (Currently amended) The user computing device of claim 61 wherein the index is represented as at least part of a sequence of bits [~~comprised of a first field and a second field~~], and wherein the software program is adapted to access a database with only a part of the sequence of bits [~~the first field of the index~~].

74. (Currently amended) The user computing device of claim 73 wherein a plurality of bit sequences including the same index and other different information [~~indexes having the same first field and different second fields~~] will result in extraction of the same pointer.

75. (Original) The user computing device of claim 61 wherein the software program is adapted to use the pointer to establish communication with the remote computer identified thereby automatically without user intervention.

76. (Original) The user computing device of claim 75 wherein the automatic communication by the user computing device with the remote computer is executed by a web browser program running on the user computing device.

77. (Original) The user computing device of claim 61 wherein the software program is adapted to use the pointer to establish communication with the remote computer identified thereby by using a user-selected hypertext link returned to the user computing device by the database.

78. (Original) The user computing device of claim 61, further adapted to establish communication with the remote computer over a wide area network.

79. (Original) The user computing device of claim 78 further adapted to establish communication with the remote computer over the Internet.

80. (Original) The user computing device of claim 78 further adapted to establish communication with the remote computer over an online service.

81. (Original) A method of connecting a user computing device to one of a plurality of remote computers available for communication over a network comprising: a) reading a data carrier modulated with an index; b) accessing a database with the index to retrieve a pointer which identifies a remote computer on the network; c) extracting a pointer from the database as a function of the index; and d) using the pointer to establish communication with the remote computer identified thereby.

82. (Original) A system comprising: a. a user computing device; b. an input device associated with the user computing device, configured to read a data carrier modulated with an index; c. a database for linking the index to a pointer which identifies a remote computer; wherein the user computing device comprises: means for accessing the database to extract a pointer from the database as a function of the index; and means for using the pointer to establish communication with the remote computer identified thereby.

83. (Original) A user computing device comprising: a. an input device configured to read a data carrier modulated with an index; and b. computer processing means for executing a software program adapted to: utilize the index to access a database to retrieve a pointer which identifies a remote computer; retrieve from the database a pointer as a function of the index; and use the pointer to establish communication with the remote computer identified thereby.

84. (New) The method of claim 1 wherein the data carrier comprises a two dimensional color image and the index is embedded in the color image.

85. (New) The method of claim 84 wherein the index is steganographically embedded in the two dimensional color image.

86. (New) The system of claim 31 wherein the data carrier comprises a two dimensional color image and the index is embedded in the color image.

87. (New) The system of claim 86 wherein the index is steganographically embedded in the two dimensional color image.

88. (New) The device of claim 61 wherein the data carrier comprises a two dimensional color image and the index is embedded in the color image.

89. (New) The device of claim 88 wherein the index is steganographically embedded in the two dimensional color image.

90. (New) The method of claim 81 wherein the data carrier comprises a two dimensional color image and the index is embedded in the color image.

91. (New) The method of claim 90 wherein the index is steganographically embedded in the two dimensional color image.

92. (New) The system of claim 82 wherein the data carrier comprises a two dimensional color image and the index is embedded in the color image.

93. (New) The system of claim 92 wherein the index is steganographically embedded in the two dimensional color image.

94. (New) The device of claim 83 wherein the data carrier comprises a two dimensional color image and the index is embedded in the color image.

95. (New) The device of claim 94 wherein the index is steganographically embedded in the two dimensional color image.